Lacrimal Disorders

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DACRYOSTENOSIS

Clinical Features

Treatment

DACRYOCYSTIS

DACRYOADENITIS

Tear film provides:
1) smooth and transparent refractive surface
2) essential moisture
3) oxygen to epithelial cells
4) protective proteins (e.g. IgA, complement, lysozyme)

Health of ocular surface is entirely dependent upon quantity & quality of tear film (both can be altered by contact lenses):

• normal eye has 6 μL tears with turnover 1.2 μL/min.

DACRYOSTENOSIS

- Stricture of nasolacrimal duct

Congenital dacryostenosis - epiphora of one eye in infant (at age > 3 wk)

Acquired dacryostenosis:

1) chronic lacrimal sac infection
2) severe or chronic conjunctivitis.
3) deviated septum, hypertrophic rhinitis, mucosal polyps, hypertrophied inferior turbinate, fracture of facial bones.

Clinical Features

• prolonged blockage → dacryocystitis.
• pressure on lacrimal sac → copious mucus / pus reflux from punctum.

Treatment

Congenital dacryostenosis - resolves spontaneously by age 6 mo.

• milking lacrimal sac (with firm fingertip massage) + antibiotic ointment may speed resolution.
• if resolution is not spontaneous → punctum should be dilated (under brief general anesthesia) and lacrimal drainage system probed.

Acquired dacryostenosis - dilate punctum under local anesthetic → isotonic saline irrigation through nasolacrimal system with fine blunt canaliculus needle (fluorescein drop in saline makes obstruction in nose easily detectable).

• if this technique fails → lacrimal probing with increasing size.
• complete obstruction → surgical opening.

DACRYOCYSTITIS

- infection of lacrimal sac.

Usually secondary to dacryostenosis.

Acute dacryocystitis - pain, redness, edema about lacrimal sac; epiphora; conjunctivitis; blepharitis; fever; leukocytosis; abscess may form → rupture → draining fistula.

• treatment - frequent hot compresses; CEPILEXIN / CEFAZOLIN for severe cases; incision and drainage for abscess.

Chronic dacryocystitis - slight sac swelling and tearing may be the only symptoms.

• pus may regurgitate (through punctum) when pressure is applied.
• retained secretions may form large mucocele.

• treatment - nasolacrimal duct dilation with probe and syringing with saline (under local anesthetic); contributory nasal or sinus abnormalities should be treated.

If this treatment fails → nasolacrimal intubation, dacryocystorhinostomy, sac removal.
DACRYOADENITIS

- pain and swelling on temporal side of upper lid (upper lid appears S-shaped), ptosis:
  - acute – viruses (mumps, influenza, measles), gonococci.
  - chronic – tumors, sarcoid, etc.

**ENLARGEMENT OF THE LACRIMAL GLAND**

An enlarged lacrimal gland may displace the eyeball downward, nasally, and forward. A swelling is sometimes visible above the lateral third of the upper lid, giving the lid margin an S-shaped curve. Look for the enlarged gland between the elevated upper lid and the eyeball. Causes of lacrimal gland enlargement include inflammation and tumors.

**BIBLIOGRAPHY** for ch. “Ophthalmology” → follow this LINK >>


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